

Under this interpretation, Richard, in his second publication, unwittingly shifted the application of *Elodea*. His *Anacharis* is, in effect, a renaming of his first *Elodea*. His second *Elodea* becomes a later homonym of the first; *Philotria*, a later synonym of *Anacharis*. The South American hermaphrodite species have to take the name *Apalanthé* Planch. Ann. Sci. Nat. ser. 3, xi. 75 (1849). But ANACHARIS again steps forth as the correct appellation for the North American species!

By whichever of the three possible taxonomic approaches, then, one goes at the matter, the nomenclatural conclusion is the same—an uncommonly and unexpectedly happy result.

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ANOTHER LOCALIZED VARIETY OF *BIDENS HETERODOXA*.—*BIDENS HETERODOXA* (Fernald) Fernald & St. John, var. **atheistica**, var. nov., *B. heterodoxam* et var. *orthodoxam* Fern. & St. John valde simulans; acheneis exterioribus 4–4.8 mm. longis interioribus 5–7 mm. longis strigosis, aristis nullis vel perbrevibus antrorse barbellulatis.—QUEBEC: tidal mud and slaty gravel by the St. Lawrence, Berthier, Co. Bellechasse, September 14, 1931, *Fernald*, no. 2952; tidal mud of the St. Lawrence, Anse St. Vallier, Co. Bellechasse, September 15, 1931, *Fernald*, nos. 2955 (TYPE in Gray Herb.), 2960.

Bidens heterodoxa, originally from tidal mud on Prince Edward Island, has normally developed awns, though antrorsely barbellate; var. *orthodoxa* of the Magdalen Islands is quite similar, but with retrorsely barbed awns; var. *agnostica* Fernald, known at a single station in Connecticut, has the long awns smooth and polished, not barbed. Another variety, from the same Connecticut station, var. *monardaefolia* Fernald, has long retrorsely barbed awns and leaves much broader and less saliently toothed than in the northern varieties. Var. *atheistica*, essentially without awns, has the foliage, involucre and other characters quite as in typical *B. heterodoxa*.

The occurrence of an awnless *Bidens* on the broad and deeply flooded tidal flats of the St. Lawrence is peculiarly interesting, in view of the occurrence with it of the wholly anomalous *Epilobium ecomosum* (Fassett) Fernald, RHODORA, xxxiv. 39 (1932), an estuarine species quite lacking the coma which is found in all other species of *Epilobium*. To those who profess not to believe in *adaptations* and *survival of the fittest*, these two cases are specially commended; in the tidal flats regu-

larly flooded twice a day by water so deep as to justify the construction of extensive fish-weirs the plumose coma and the retrorsely barbed awns are of no use in distributing the species.

Not all the species of *Bidens* in the estuary of the St. Lawrence, however, have lost their retrorsely barbed awns. *B. hyperborea* in several forms is there, though *B. frondosa* is chiefly (if not entirely) represented by the var. *anomala* Porter, with antrorsely barbellate awns. On the broad tide-covered swales at Ste. Anne de Beaupré I got perfectly characteristic *B. Eatonii* Fernald, var. *fallax* Fernald, the first station for the variety except in the estuary of the Merrimac in Massachusetts and the first for any form of the species from north of the coast of New England.

I made very extensive collections of these and several other plants of the St. Lawrence estuary, especially at Ste. Anne de Beaupré and at Anse St. Vallier. Unfortunately the packages, sent by parcel post to be finally dried at the Gray Herbarium, ran into obstructions at the United States customs and were *six weeks* between Quebec and Boston. There are few duplicates fit for distribution.—M. L. FERNALD, Gray Herbarium.

DOES *JUNCUS BULBOSUS* OCCUR IN MASSACHUSETTS?—One of the most distinctive species of *Juncus* is the widely dispersed Atlantic European and Macronesian *J. bulbosus* L. (*J. supinus* Moench, *J. uliginosus* Roth), a weak perennial with many decumbent or repent culms from the hardened base; the flowers and fruits somewhat as in *J. acuminatus* Michx., with 3 stamens, blunt petals, and blunt capsules; the glomerules, when leaning or falling into very wet places, quickly proliferous and developing plumes of many leaves. The plant was collected early in the last century in southeastern Newfoundland, by Bachelot de la Pylaie, and it was definitely listed from there in the *Monographie des Vrais Joncées* by Laharpe: "Elle habite les marais fangeux ou sablonneux, à Terre-Neuve!"¹ In 1890, however, in his *Monographia Juncacearum*, Buchenau stated that its range included only Europe, Algeria, Tunis, Madeira and the Azores, and suggested that the la Pylaie material is more probably *J. acuminatus* (which does not grow in Newfoundland): "Ob *J. supinus* in Newfoundland vorkommt, wo DE LA PYLAIE ihn gesammelt haben soll,

¹ Laharpe, Mém. Soc. d'Hist. Nat. Par. iii. 135 (1827).